

## 1. Common Solutions to NOAA Weather Radio Problems (FAQ).

Symptom	Cause & Remedy
1...Not picking up any broadcast signal	<p>1...Radio transmitter isn't working (hit by lightning or ice storm) or is down for some maintenance.</p> <p>2...NWR not receiving signal. Hills, buildings and some double- and triple-pane windows can partially or totally block signal.</p> <ul style="list-style-type: none"> <li>• Put radio next to window above ground level.</li> <li>• Install an exterior antenna kit on your building's roof, or patio deck, or in the attic, and run cable into your weather radio.</li> <li>• Make sure radio is receiving electrical power and/or battery is properly inserted and works.</li> <li>• Operate radio in battery-only mode and then move it around room or in a different room for a stronger signal "hot spot."</li> <li>• Last resort – purchase a new weather radio.</li> </ul>
2...Weak signal – can barely hear broadcast	<p>1...Transmitter may be temporarily operating at lower power. Switch to another frequency (channel).</p> <p>2... NWR not receiving signal. Hills and thick buildings block signal.</p> <ul style="list-style-type: none"> <li>• Put radio next to window above ground level.</li> <li>• Install an exterior antenna kit on your building's roof, or patio deck, or in the attic, and run cable into your weather radio.</li> <li>• Make sure radio is receiving electrical power and/or battery is properly inserted and works.</li> <li>• Operate radio in battery-only mode and then move it around room or in a different room for a stronger signal "hot spot."</li> <li>• Adjust angle of whip antenna from vertical to 45 degree to near horizontal.</li> <li>• Keep radio away from or turn off nearby computers, video displays, Cable/TV/satellite boxes or nearby light dimmer switch that could generate radio frequency interference (RFI).</li> </ul>
3...Intermittent Weak signal – can hear broadcast only occasionally	<p>1...NWR not receiving signal. Atmospheric inversions and extremely heavy rain can reduce good reception of signal at times.</p> <ul style="list-style-type: none"> <li>• Select another frequency (channel).</li> <li>• Install an exterior antenna kit on your building's roof, or in the attic, or on the patio deck, and run cable into your weather radio.</li> <li>• Keep radio away from or turn off nearby computers, video displays, Cable/TV/satellite boxes, nearby light dimmer switches or compact fluorescent lights that could generate radio frequency interference (RFI).</li> </ul>
4...Brief interruptions of about 1-2 seconds occur	<p>No action needed on your part.</p> <p>Brief interruption is caused by NWS personnel</p>

	switching from primary to secondary transmitters (to allow maintenance on primary system), or other routine maintenance.
<b>5</b> ...No signal for only about 3 to 5 minutes	No action needed on your part. NWS computers that send audio to transmitters were probably rebooted due to a computer hang-up.
<b>6</b> ...Can hear broadcast, but tone-alert doesn't work, or radio displays "Check Reception."	<p><b>1</b>...You may have improperly programmed the Specific Area message Encoding code for selected counties. Wisconsin EAS code is 055xxx, where xxx is a specific county number (<b>FIP</b>) found at this link... <a href="http://www.nws.noaa.gov/nwr/indexnw.htm#sametable">http://www.nws.noaa.gov/nwr/indexnw.htm#sametable</a></p> <p><b>2</b>...Signal is strong enough to allow you to hear broadcast, but not above a minimum threshold value that is needed for radio unit to allow activation of tone-alert feature.</p> <ul style="list-style-type: none"> <li>• Move weather radio next to window or install exterior antenna kit on roof of building.</li> <li>• Install an exterior antenna kit on your building's roof, or in the attic, or on the patio deck and run cable into your weather radio.</li> </ul>
<b>7</b> ...Radio doesn't tone-alert for Wednesday tests	Some manufacturers de-activate the tone-alert feature (internally) for the Wednesday tests (RMT or RWT). Contact manufacturer to have them modify your radio (at a cost). Carefully review the owner's manual for comments about this function. You will still hear the Wednesday test audio if you manually turn on your radio.
<b>8</b> ...You have only one or two counties programmed in your radio. Radio tone-alerts for a warning for a county not programmed in your radio.	De-select the previously programmed counties, and reprogram them.
<b>9</b> ...Radio beeps roughly once every 10 minutes.	<p>Some radios know they are supposed to receive a weekly test from the NWS every seven days. If the radio goes for ten days without receiving a test, it gives out one beep every ten minutes. The radio will re-set itself at the next weekly test, or the next watch/warning issuance.</p> <ul style="list-style-type: none"> <li>• To cancel the beeping, unplug the radio from the wall, turn the radio over, and remove one battery. Replace the battery and plug the radio back in.</li> <li>• The settings on the radio will NOT be affected by this, as the SAME county code, and all other information is stored on a flash memory chip (for the newer radios).</li> <li>• You WILL need to re-set the clock.</li> </ul> <p>(also check with FAQ #6)</p>
<b>10</b> ...Radio works normally, and you do hear the tone-alerts for tornado and severe thunderstorms, but you don't hear the tone-	Your radio is working correctly. The 10-second tone-alert feature on weather radios is used only for watches/warnings for three events: tornado, severe

<p>alert feature for Winter Storm or Blizzard Warnings, High Wind Warnings, Excessive Heat Warnings, Heat Advisories, Dense Fog Advisories, River Flood situations, etc.</p>	<p>thunderstorm, and flash flood. These are considered short-fuse events that give people little time to prepare for and seek shelter. Information on long-fuse events can be obtained at <a href="http://www.weather.gov">www.weather.gov</a></p>
<p><b>11</b>...Web-based weather radio broadcasts are unavailable via the Internet.</p>	<p>Numerous companies host streaming sites, but not all weather radio broadcasts are available. The NWS does not control which radio signals are streamed over the Internet. Streaming links are available at <a href="http://www.nws.noaa.gov/nwr/streamaudio.htm">http://www.nws.noaa.gov/nwr/streamaudio.htm</a>.</p>
<p><b>12</b>...I'm traveling around the county and the signal strength of my portable radio varies considerably.</p>	<p>Problem may be related to others listed above. Also, keep in mind that some transmitters are directional, that is most of their energy is pointing in one direction. This is normal in hilly-valley areas, downtown metro areas with excessive radio signals mixing or locations that are on the edge of useful radio reception.</p> <p>Some TV stations broadcast the weather radio audio on their secondary channels, scan thru the TV channels to find these.</p>
<p><b>13</b>...A bad thunderstorm passed over my house but I didn't hear a tone alert on my weather radio. Why not?</p>	<p>It is possible that the NWS did not issue a warning for the storm. Warnings are issued for thunderstorms with specific criteria:</p> <ul style="list-style-type: none"> <li>• 1" diameter hail or larger</li> <li>• Winds near 60 mph or greater</li> <li>• Tornado</li> <li>• Flash flooding</li> </ul> <p>If a storm is not expected to produce severe weather, a warning with an alert is not issued.</p> <p>If you know a warning was issued for your location and your radio did not sound an alert, check out the answer in FAQ #6.</p>

Skip Voros (MASA) Comments ([incorporate into above table?](#)):

1. They need to determine their distance from the transmitter at KK and Wood Road in Racine county. That x-mitter should easily provide "Full quieting" coverage.

2. If they put the radio in monitor mode, do they hear a lot crackle or hiss (especially during pauses between words? If there is crackle or hiss, this would indicate a weak signal at their end...a potential near dead-zone. When there is a strong signal going into a receiver (radio/TV/ham/Public safety), radio engineers call this 'Full quieting.' In other words, when there is no chatter, there is no hiss, crackle or buzz.

3. During the warm season temperature inversions can affect reception of the station. Just as you and I see the A-P ground clutter expand, there could be out-of-town stations competing on the same freq as the Racine system. I have experienced some situations where even the Milwaukee/Delafield signal (at my West Allis home) was being interfered with from another out-of-town transmitter.

4. What about the Tone alert encoding signal? This is (if I recall) a Frequency Shift Key (FSK) modulated signal that originates from the WFO tone generating system and is sent down the phone line to the (Racine X-mitter)? Is the encoder putting out the exact signal? A hair off and it may work on some NOAA Receivers and maybe not others. BUT...Dave Maack did indicate his worked.